

British Standard Methods of test for

Footwear and footwear materials

Part 3. Uppers, textiles and threads

Section 3.5 The break/pipiness test

Méthodes d'essai des chaussures et des matériaux entrant dans leur confection

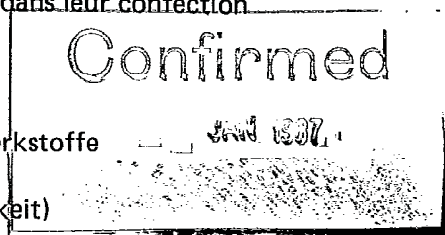
Partie 3. Dessus des chaussures, textiles et fils

Section 3.5 Essai break/creux

Prüfverfahren für Fussbekleidung und Fussbekleidungswerkstoffe

Teil 3. Oberleder, Textilien und Fäden

Abschnitt 3.5 Die Beurteilung des Nabenbilds (Losnarbigkeit)



NOTE. It is recommended that this Section should be read in conjunction with the information in the General Introduction to BS 5131, published separately.

1. Scope

This Section describes a method for assessing the amount of wrinkling of the grain of upper leather, or the top surface of a synthetic material, when it is folded inwards to a standard curvature. This method is applicable to whole skins, sheet material, cut components and made-up shoes.

NOTE. Section 3.5 is based on SATRA* Method PM36.

2. Principle

The test piece is made to conform to the outside curvature of a mandrel, grain side inwards, and the wrinkling, as seen through a window in the mandrel, is graded by comparing it with a set of standards which constitute the break/pipiness scale.

3. Apparatus

3.1 The scale, consisting of a replica in black plastics of the master scale of eight samples of side leather, thickness 1.3 mm, bent grain inwards in a 10 mm radius trough. The degree of wrinkling increases as the scale is ascended, thus sample 1 has the finest wrinkles and sample 8 the most coarse wrinkles.

3.2 The mandrel, a semi-cylindrical metal tube of external radius 8.7 mm, fitted with a handle and a rectangular window through which the test piece is viewed. This window is 20 mm long and 10 mm wide (chord length 10 mm). The radius of curvature of 8.7 mm is also that of the grain surface of the replicas of the break scale.

NOTE. The SATRA break/pipiness scale and mandrel (STD.174) are available from SATRA, SATRA House, Rockingham Road, Kettering, Northants NN16 9JH.

4. Test pieces

The test may be carried out on skins or pieces of material or the vamps of shoes without cutting out a test piece. If a test piece is desired, cut a rectangle approximately 40 mm x 60 mm in each principal direction.

5. Procedure

5.1 Carefully form the upper material into a U-shape around the mandrel with the 60 mm dimension parallel to the length of the mandrel. No pressure should be applied to the back of the area which is visible through the rectangular window, nor should the material be tensioned as it is formed around the mandrel. When wrinkling across the vamp of a shoe is being assessed, hold the mandrel across the vamp with the window approximately at the centre of the crease line produced by walking (or the expected position of this line). It is usually necessary to insert the other hand in the shoe to form the vamp correctly round the mandrel.

5.2 Compare the wrinkling of the grain seen through the window of the mandrel with that of the standard replicas in the scale and express the result as indicated in 6.1.

5.3 Where a piece of material is being tested, a second test should not be carried out using the same area as the first.

NOTE. *Use of a test piece trough.* If desired the wrinkling of a test piece may be produced by inserting it in a trough instead of by wrapping it around the mandrel. The trough for this purpose should be semi-circular with a radius of curvature of 10 mm. Cut each test piece 25 mm x 31 mm. Insert a test piece in the trough so that the 25 mm dimension is parallel to the length of the trough and the flesh or equivalent side is in contact with the curved surface at all points. Assess the wrinkling by comparing the test piece with the standard replicas of the scale.

* Shoe and Allied Trades Research Association.